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ABSTRACT

Evaluation of a career education institute, conducted to infuse career education into the preservice certification at participating higher education institutions throughout New York State, was designed to assess the effectiveness of the conference and to serve as a model for similar activities. There were two major components of the evaluation. First, a semantic differential scale was used to measure attitudes of participants from New York City and Buffalo on four key concepts: Career education, college, work, and academic standards. Mean scores for each set of the pre/post test bipolar adjectives were assessed and an analysis of variance was calculated. Second, a 20-item Likert scale assessed how effectively the institute assisted individual members of teams to achieve a series of specific enabling objectives. A chi-square analysis was used to compare observed and expected frequencies of the Likert scale responses for each major region of the State. Included in the reported results are the findings that no significant differences were observed on the analysis of variance and that the majority of the total participants agreed or strongly agreed that the institute assisted them in accomplishing the major goals. Appendixes contain instructions and answer sheet for semantic differential, the institute evaluation instrument, and data analysis. (Author/TA)

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AN EVALUATION OF THE
CAREER EDUCATION INSTITUTE

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AN EVALUATION OF THE CAREER EDUCATION INSTITUTE

MAY 2 thru 7, 1976

INTRODUCTION

The Career Education Institute held in Niagara Falls May 2 - 7, 1976, was sponsored by the Bureau of Inservice Education of the New York State Education Department. The primary goal of the institute was to infuse career education into the perservice certification program at each participating institutions of higher education throughout New York State.

The evaluation consisted of three major components:

1. A semantic differential was developed to measure the attitudes of participants from New York City and Buffalo. The semantic differential scale included four key concepts: career education, college, work and academic standards. Mean scores for each set of the pre/post test bipolar adjectives were assessed. An analysis of variance was also calculated for each set of scores.
2. A 20 item Likert scale which assessed how effectively the institute assisted individual members of teams to achieve a series of specific objectives designed to enable them to infuse career education at their institution. A chi-square analysis was used to compare observed and expected frequencies of the Likert scales responses for each major region of the State including Buffalo, Long Island, Mid-Hudson, New York City and Syracuse.

3. Each of the participating teams developed and submitted to the SED a mini-grant proposal for \$800 which enabled them to facilitate the development of the program. These proposals were individually evaluated by the regional coordinators. After appropriate revisions and approval by each participating institution, the proposals were evaluated by the State Education Department.

COMPONENT I

ATTITUDES ASSESSED BY SEMANTIC DIFFERENTIAL

The first component of the evaluation was the assessment of the attitudes of the participants toward four concepts including: career education, college, work and academic standards. A semantic differential consisting of ten bipolar adjectives were used to determine attitudes toward these concepts. The adjectives were placed on a seven point scale and participants were asked to select the word which represented their attitudes toward each concept. The adjectives were placed on a seven point scale and participants were asked to select the word which represented their attitudes toward each concept. The bipolar adjectives were:

1. Good Bad
2. Unimportant Important
3. Successful Unsuccessful
4. Dirty Clean
5. Weak Strong
6. Free Constrained
7. Healthy Sick
8. Motivated Aimless
9. Active Passive
10. Effortless Laborious

A rating of "1" was positive for bipolar adjective numbered 1,3,6,7,8,9 and 10. A rating of "7" for each these bipolar adjectives was negative. Consequently, a rating of "7" was positive for bipolar adjective numbered 2, 4, and 5. Response set was randomly changed for the other three concepts (college, work and academic standards).

When a seven rating scale is utilized, a neutual reaction would be reflected by a mean score of 4. Typically in a semantic differential analysis, a deviation from the neutual point by .5 is a meaningful deviation. Thus, the neutual point range was 3.5 to 4.5. Mean scores outside of this range would be analyzed as either positive or negative. For example, the mean of 1.80 for the post test for the adjective "good" within the concept of career education for the Buffalo region was very positive. On the basis of this criterion, only one concept - scale pair would be labeled neutual for the Buffalo region. Participants perceived career education as neutual between successful and unsuccessful. However, career education was regarded by participants from the Buffalo and New York City regions as "good," "important," "clean," "strong," "motivated," "active," and "laborious." Participants from the New York City region were neutual between "free" and "constrained," while participants from Buffalo viewed it as "free."

Participants from both regions also perceived college, work and academic standards as "good," "important," "successful," "clean," "strong," "healthy," "motivated" and "active." Both regions were neutual on "free" and "constrained" for the concept of academic standards. Another exception was noted in responses to "laborious" and "effortless" for the concept of work.

Participants from the Buffalo region rated work as "laborious," while New York City was neutral between "laborious" and "effortless."

Although there were differences among the mean scores for the pre/post test and between the two regions, no significant differences were observed on the analysis of variance. Consequently, the observed differences should be interpreted cautiously since they readily could have resulted from chance. Refer to Appendix A for the instrument and four tables which contain the pre/post mean scores for the Buffalo and New York City regions.

COMPONENT II

ATTITUDES ASSESSED BY LIKERT SCALES

On Friday, May 7, 1976, each participant completed a 17 item survey instrument entitled, "Institute Evaluation." A copy of the questionnaire and results for the five regions are contained in Appendix B. All answers were recorded on an IBM digetek answer sheet which was computer scored. A chi-square analysis was used to compare observed and expected frequencies among the regions including Buffalo, Long Island, Mid-Hudson, New York City and Syracuse. The .05 level of probability was used to test the null hypothesis. In addition, tallies or bit counts and percentages were reported. Only one item "Participation in the Conference Assisted Our Team to Utilize Techniques of Group Dynamics to Achieve Career Education Goals" (see Table B-9) was statistically significant ($\chi^2 = 18.98, p < .05$). Positive responses to this item ranged from 19 (73.01%) participants from the Mid-Hudson region to only 4 (25.00%) participants from Syracuse who either strongly agree or agree with the statement. Negative responses, either strongly disagree or disagree, to the item ranged from a low of 1 (3.85%) from Mid-Hudson, to a high of 16 (44.45%) from the New York City region. This indicated that participants from the New York City and Syracuse areas did not feel that the institute assisted them in developing skill in using group dynamics techniques, particularly in comparison to those from the Mid-Hudson. Possibly these

data reflect, in part, differences in the approaches of regional directors from these areas. This is not undesirable, for although pre-planning meetings were held to coordinate the conceptual approaches in each of the regions no attempt was made to standardize the approach used by the various regional directors. The number of columns in the chi-square analysis was decreased from five columns to three for each of the 17 tables. The primary reason for combining the Likert-type scale of strongly agree with agree to one column and strongly disagree with disagree to one column was to avoid open cells with zero responses. There was a total of 28 cells in the 17 tables with zero responses. Thus, it would be inappropriate to use the chi-square test for these cells in the five columns. However, collapsing columns enabled the evaluators to meet the necessary assumptions for a chi-square analysis; namely, that 80 percent of the cells contain at least five responses or subjects.

A review of Tables B-1 through B-17 reveals that a majority of the total participants agrees or strongly agrees that the institute assisted them to accomplish the major stated goals. Only a limited number disagree or strongly disagreed. Ratings by the Mid-Hudson region were the most positive with a majority of their participants giving positive ratings for each of the 17 questionnaire items. Participants from the Buffalo region also rated each of the 17 items positively. Participants from the remaining three regions rated all items positively with the exception of the following:

Syracuse Region

Table B-9	Participation in the Conference Assisted Our Team to Utilize Techniques of Group Dynamics to Achieve Career Education Goals
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Long Island Region

- Table B-4 Participation in the Conference Assisted Our Team to Analyze Ways in Which the Developmental Needs of Elementary/Secondary Pupils Can Be Met Through Career Education
- Table B-12 Participation in the Conference Assisted Our Team to Identify Teaching Strategies That Teachers Can Utilize to Infuse Career Education into the Curriculum

New York City Region

- Table B-2 Participation in the Conference Assisted Our Team to Develop a Personal Definition of Career Education
- Table B-3 Participation in the Conference Assisted Our Team to Describe the Role of a Teacher-Educator in Regard to Career Education
- Table B-4 Participation in the Conference Assisted Our Team to Analyze Ways in Which the Developmental Needs of Elementary/Secondary Pupils Can Be Met Through Career Education
- Table B-5 Participation in the Conference Assisted Our Team to Compare Major Theories of Career Development
- Table B-9 Participation in the Conference Assisted Our Team to Utilize Techniques of Group Dynamics to Achieve Career Education Goals
- Table B-12 Participation in the Conference Assisted Our Team to Identify Teaching Strategies That Teachers Can Utilize to Infuse Career Education into the Curriculum
- Table B-16 Participation in the Conference Assisted Our Team to Identify Competencies College Students Will Need to Infuse Career Education in Elementary/Secondary Schools

Again, it should be noted that these differences were not statistically significant when the five regions were compared, although comparisons made

between the most positive groups (Mid-Hudson or Buffalo) and the least positive group (New York City) were significant. These data, however, were not reported since the major interest of the evaluators was in comparing the five regions as components of the total group. Indeed, the results indicate that the training program was consistently rated positively in all regions with only a few exceptions.

APPENDIX A

INSTRUCTIONS FOR SEMANTIC DIFFERENTIAL

ANSWER SHEET FOR SEMANTIC DIFFERENTIAL

TABLES A - 1 through A - 4

CAREER EDUCATION ATTITUDES

INSTRUCTIONS: This instrument is designed to measure your attitudes towards career education. Please use a #2 pencil to darken the appropriate space on the answer sheet.

If you feel that the concept being evaluated is very closely related to one end of the scale, darken the space for number 1 or number 7 on the answer sheet as follows:

FAIR /7/ 1 2 3 4 5 6 7 UNFAIR

FAIR 1 2 3 4 5 6 /7/ UNFAIR

If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), darken the space for number 2 or number 6 on the answer sheet as follows:

FAIR 1 /2/ 3 4 5 6 7 UNFAIR

FAIR 1 2 3 4 5 /6/ 7 UNFAIR

If the concept seems only slightly related to one side as opposed to the other side (but not really neutral), then you should darken the space for number 3 or number 5 on the answer sheet as follows:

FAIR 1 2 /3/ 4 5 6 7 UNFAIR

FAIR 1 2 3 4 /5/ 6 7 UNFAIR

If you consider the concept to be neutral or completely irrelevant and unrelated to the concept, darken the space for number 4.

FAIR 1 2 3 /4/ 5 6 7 UNFAIR

Please follow these instructions when completing this instrument. On the left side of the answer sheet which has been distributed to you, four concepts are listed (CAREER EDUCATION: COLLEGE: WORK: ACADEMIC STANDARDS) with 10 scales (pairs of bipolar adjectives) for each concept.

Complete each scale by darkening the number which best describes your immediate feeling about the item. Thank you for your cooperation.

CAREER EDUCATION ATTITUDES

		QUESTION NUMBER	RESPONSE NUMBER									
C	1.	Good.....Bad	1. 0	1	2	3	4	5	6	7	8	9
A E	2.	Unimportant...Important	2. 0	1	2	3	4	5	6	7	8	9
R D	3.	Successful.....Unsuccessful	3. 0	1	2	3	4	5	6	7	8	9
E U	4.	Dirty.....Clean	4. 0	1	2	3	4	5	6	7	8	9
E C	5.	Weak.....Strong	5. 0	1	2	3	4	5	6	7	8	9
R A	6.	Free.....Constrained	6. 0	1	2	3	4	5	6	7	8	9
T	7.	Healthy.....Sick	7. 0	1	2	3	4	5	6	7	8	9
I	8.	Motivated.....Aimless	8. 0	1	2	3	4	5	6	7	8	9
O	9.	Active.....Passive	9. 0	1	2	3	4	5	6	7	8	9
N	10.	Effortless.....Laborious	10. 0	1	2	3	4	5	6	7	8	9
			11. 0	1	2	3	4	5	6	7	8	9
C	11.	Bad.....Good	11. 0	1	2	3	4	5	6	7	8	9
O	12.	Important.....Unimportant	12. 0	1	2	3	4	5	6	7	8	9
L	13.	Successful.....Unsuccessful	13. 0	1	2	3	4	5	6	7	8	9
L	14.	Dirty.....Clean	14. 0	1	2	3	4	5	6	7	8	9
E	15.	Strong.....Weak	15. 0	1	2	3	4	5	6	7	8	9
G	16.	Constrained....Free	16. 0	1	2	3	4	5	6	7	8	9
E	17.	Healthy.....Sick	17. 0	1	2	3	4	5	6	7	8	9
	18.	Aimless.....Motivated	18. 0	1	2	3	4	5	6	7	8	9
	19.	Active.....Passive	19. 0	1	2	3	4	5	6	7	8	9
	20.	Laborious.....Effortless	20. 0	1	2	3	4	5	6	7	8	9
			21. 0	1	2	3	4	5	6	7	8	9
W	21.	Bad.....Good	21. 0	1	2	3	4	5	6	7	8	9
O	22.	Unimportant...Important	22. 0	1	2	3	4	5	6	7	8	9
R	23.	Unsuccessful...Successful	23. 0	1	2	3	4	5	6	7	8	9
K	24.	Clean.....Dirty	24. 0	1	2	3	4	5	6	7	8	9
	25.	Weak.....Strong	25. 0	1	2	3	4	5	6	7	8	9
	26.	Constrained....Free	26. 0	1	2	3	4	5	6	7	8	9
	27.	Sick.....Healthy	27. 0	1	2	3	4	5	6	7	8	9
	28.	Aimless.....Motivated	28. 0	1	2	3	4	5	6	7	8	9
	29.	Passive.....Active	29. 0	1	2	3	4	5	6	7	8	9
	30.	Laborious.....Effortless	30. 0	1	2	3	4	5	6	7	8	9
			31. 0	1	2	3	4	5	6	7	8	9
A	31.	Good.....Bad	31. 0	1	2	3	4	5	6	7	8	9
C S	32.	Unimportant...Important	32. 0	1	2	3	4	5	6	7	8	9
A T	33.	Successful.....Unsuccessful	33. 0	1	2	3	4	5	6	7	8	9
D A	34.	Clean.....Dirty	34. 0	1	2	3	4	5	6	7	8	9
E N	35.	Strong.....Weak	35. 0	1	2	3	4	5	6	7	8	9
M D	36.	Free.....Constrained	36. 0	1	2	3	4	5	6	7	8	9
I A	37.	Sick.....Healthy	37. 0	1	2	3	4	5	6	7	8	9
C R	38.	Motivated.....Aimless	38. 0	1	2	3	4	5	6	7	8	9
D	39.	Active.....Passive	39. 0	1	2	3	4	5	6	7	8	9
S	40.	Effortless.....Laborious	40. 0	1	2	3	4	5	6	7	8	9
			41. 0	1	2	3	4	5	6	7	8	9
41. Which region of NYS do you represent?			41. 0	1	2	3	4	5	6	7	8	9
1. Long Island; 2. NYC; 3. Kingston-Poughkeepsie; 4. Syracuse; 5. Buffalo			42. 0	1	2	3	4	5	6	7	8	9
			43. 0	1	2	3	4	5	6	7	8	9
42. Are you male or female?			44. 0	1	2	3	4	5	6	7	8	9
1. Male; 2. Female			45. 0	1	2	3	4	5	6	7	8	9
			46. 0	1	2	3	4	5	6	7	8	9
43. How many years of professional educational experience will you complete this year?			47. 0	1	2	3	4	5	6	7	8	9
1. 1-5; 2. 6-10; 3. 11-15; 4. over 15			48. 0	1	2	3	4	5	6	7	8	9
			49. 0	1	2	3	4	5	6	7	8	9
			50. 0	1	2	3	4	5	6	7	8	9

TABLE A-1

PRE/POST TEST SEMANTIC DIFFERENTIAL
(ATTITUDES TOWARD CAREER EDUCATION)
BUFFALO vs. NEW YORK CITY REGIONS

BI-POLAR ADJECTIVES	TIME OF TEST	BUFFALO REGION N FOR PRE TEST = 33 N FOR POST TEST = 25		NEW YORK CITY REGION N FOR PRE TEST = 34 N FOR POST TEST = 24	
		MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
1. GOOD - BAD	Pre	2.00	1.37	2.26	1.93
	Post	1.80	1.47	2.62	2.16
2. UNIMPORTANT - IMPORTANT	Pre	5.06	2.19	5.41	2.13
	Post	5.96	1.70	4.96	1.71
3. SUCCESSFUL - UNSUCCESSFUL	Pre	3.79	1.45	6.23	6.91
	Post	3.50	2.04	3.03	1.74
4. DIRTY - CLEAN	Pre	4.76	1.09	4.26	1.54
	Post	5.20	1.12	4.67	1.69
5. WEAK - STRONG	Pre	4.21	1.63	4.53	1.64
	Post	4.12	1.67	4.74	1.60
6. FREE - CONSTRAINED	Pre	3.27	1.81	3.38	1.63
	Post	2.88	1.86	3.65	2.19
7. HEALTHY - SICK	Pre	2.12	1.48	3.56	1.89
	Post	2.08	1.47	2.92	1.95
8. MOTIVATED - AIMLESS	Pre	2.48	1.58	2.56	1.64
	Post	2.56	2.02	2.96	1.83
9. ACTIVE - PASSIVE	Pre	3.45	2.05	2.76	1.86
	Post	3.17	1.86	2.52	1.78
10. EFFORTLESS - LABORIOUS	Pre	4.57	1.74	4.85	1.74
	Post	4.92	2.12	4.71	1.68

TABLE A-2

PRE/POST TEST SEMANTIC DIFFERENTIAL
(ATTITUDES TOWARD COLLEGE)
BUFFALO vs. NEW YORK CITY REGIONS

BI-POLAR ADJECTIVES	TIME OF TEST	BUFFALO REGION N FOR PRE TEST = 33 N FOR POST TEST = 25		NEW YORK CITY REGION N FOR PRE TEST = 34 N FOR POST TEST = 24	
		MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
11. BAD - GOOD	Pre	4.42	2.36	4.88	2.24
	Post	4.68	1.86	5.21	2.17
12. IMPORTANT - UNIMPORTANT	Pre	2.20	1.81	2.12	1.47
	Post	2.87	1.75	3.25	2.47
13. SUCCESSFUL - UNSUCCESSFUL	Pre	2.88	1.62	3.35	1.61
	Post	3.42	1.44	2.92	1.47
14. DIRTY - CLEAN	Pre	4.59	1.42	4.41	1.50
	Post	4.72	1.77	5.17	1.61
15. STRONG - WEAK	Pre	2.85	1.58	3.26	1.56
	Post	3.40	1.87	2.54	1.50
16. CONSTRAINED - FREE	Pre	4.03	1.53	4.44	1.80
	Post	4.92	1.71	4.50	2.02
17. HEALTHY - SICK	Pre	3.48	1.70	3.12	1.53
	Post	3.16	1.21	2.83	1.80
18. AIMLESS - MOTIVATED	Pre	4.92	1.83	4.91	1.82
	Post	5.72	1.40	4.79	1.74
19. ACTIVE - PASSIVE	Pre	3.12	2.00	3.06	1.76
	Post	2.56	1.33	2.83	1.71
20. LABORIOUS - EFFORTLESS	Pre	2.82	1.63	2.79	1.68
	Post	3.28	1.84	3.29	1.97

TABLE A-3

PRE/POST TEST SEMANTIC DIFFERENTIAL
(ATTITUDES TOWARD WORK)
BUFFALO vs. NEW YORK CITY REGIONS

BI-POLAR ADJECTIVES	TIME OF TEST	BUFFALO REGION N FOR PRE TEST = 33 N FOR POST TEST = 25		NEW YORK CITY REGION N FOR PRE TEST = 34 N FOR POST TEST = 24	
		MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
21. BAD - GOOD	Pre	5.70	1.90	5.24	1.94
	Post	5.84	1.65	5.28	1.86
22. UNIMPORTANT - IMPORTANT	Pre	6.06	1.62	5.44	2.09
	Post	5.84	1.70	5.83	1.40
23. UNSUCCESSFUL - SUCCESSFUL	Pre	5.45	1.64	5.44	1.52
	Post	5.68	1.91	5.33	1.52
24. CLEAN - DIRTY	Pre	3.97	1.29	3.26	1.40
	Post	3.28	1.34	2.96	1.65
25. WEAK - STRONG	Pre	5.18	1.53	4.50	1.66
	Post	4.64	1.60	5.37	1.41
26. CONSTRAINED - FREE	Pre	4.00	1.82	4.15	1.67
	Post	4.76	1.69	4.62	1.58
27. SICK - HEALTHY	Pre	5.73	1.38	5.12	1.79
	Post	5.32	1.70	5.46	1.35
28. AIMLESS - MOTIVATED	Pre	5.64	1.52	5.12	1.90
	Post	5.20	1.66	5.17	1.40
29. PASSIVE - ACTIVE	Pre	5.61	1.68	5.33	1.67
	Post	5.40	1.89	5.08	1.64
30. LABORIOUS - EFFORTLESS	Pre	3.09	1.67	3.00	1.76
	Post	2.92	1.53	4.04	1.78

TABLE A-4

PRE/POST TEST SEMANTIC DIFFERENTIAL
(ATTITUDES TOWARD ACADEMIC STANDARDS)
BUFFALO vs. NEW YORK CITY REGIONS

BI-POLAR ADJECTIVES	TIME OF TEST	BUFFALO REGION N FOR PRE TEST = 33 N FOR POST TEST = 25		NEW YORK CITY REGION N FOR PRE TEST = 34 N FOR POST TEST = 24	
		MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
31. GOOD - BAD	Pre	2.36	1.58	2.35	1.82
	Post	2.28	1.14	2.54	1.53
32. UNIMPORTANT - IMPORTANT	Pre	5.27	2.10	5.71	1.55
	Post	5.68	1.89	5.62	1.56
33. SUCCESSFUL - UNSUCCESSFUL	Pre	3.09	1.67	3.32	1.49
	Post	2.96	1.67	3.46	1.41
34. CLEAN - DIRTY	Pre	3.67	1.05	3.09	1.40
	Post	3.48	1.23	3.08	1.38
35. STRONG - WEAK	Pre	2.79	1.39	3.50	1.69
	Post	2.88	1.45	3.25	1.33
36. FREE - CONSTRAINED	Pre	4.39	1.60	3.91	1.75
	Post	3.64	1.55	3.71	1.92
37. SICK - HEALTHY	Pre	4.55	1.46	4.65	1.63
	Post	4.56	1.64	5.04	1.63
38. MOTIVATED - AIMLESS	Pre	2.73	1.66	2.74	1.66
	Post	2.48	1.50	3.37	1.88
39. ACTIVE - PASSIVE	Pre	2.91	1.70	2.82	1.66
	Post	2.64	1.25	3.08	1.38
40. EFFORTLESS - LABORIOUS	Pre	4.85	1.60	4.74	1.88
	Post	4.80	1.58	4.42	1.74

APPENDIX B

INSTITUTE EVALUATION INSTRUMENT

TABLES B - 1 through B - 17

CAREER EDUCATION INSTITUTE (MAY 2-7, 1976)
NIAGARA FALLS, NEW YORK

INSTITUTE EVALUATION

Please complete questions #1, 2, and 3 by darkening the appropriate space on the answer sheet. For example, on question #1, if you come from the Long Island Region, darken number 1. If you come from the New York City region, darken number 2, etc.

1. Which region of New York State do you represent?
 1. Long Island; 2. New York City; 3. Mid-Hudson; 4. Syracuse;
 5. Buffalo
2. Are you male or female?
 1. Male; 2. Female
3. How many years of professional educational experience will you complete at the end of the current academic year?
 1. 1-5 years; 2. 6-10 years; 3. 11-15 years; 4. over 15 years

Please evaluate the extent to which the institute helped your team to achieve the objectives listed in items 4 through 20. Use the following scale to respond to each statement.

1. Strongly Agree
2. Agree
3. Undecided
4. Disagree
5. Strongly Disagree

PARTICIPATION IN THE CONFERENCE ASSISTED OUR TEAM TO. . .

4. . . . identify contemporary problems which led to proposals for career education.
5. . . . develop a personal definition of career education.

6. . . . describe the role of a teacher-educator in regard to career education.
7. . . . analyze ways in which the developmental needs of elementary/secondary pupils can be met through career education.
8. . . . compare major theories of career development.
9. . . . identify major components of the Comprehensive Career Education Model.
10. . . . identify elements of the decision making process.
11. . . . describe the relationship between self-concept theories and career education.
12. . . . utilize techniques of group dynamics to achieve career education goals.
13. . . . analyze curricular plans and determine appropriate areas for infusing career education objectives.
14. . . . modify existing courses of study by infusing career education objectives.
15. . . . identify teaching strategies that teachers can utilize to infuse career education into the curriculum.
16. . . . identify career education resources that can be utilized during instruction.
17. . . . agree upon at least one area of the college pre-service curriculum for infusing career education.
18. . . . identify areas of the curriculum where career education concepts can best be infused.
19. . . . identify competencies college students will need to infuse career education in elementary/secondary schools.
20. . . . devise appropriate career education learning experiences for pre-service students.

THANK YOU FOR YOUR ASSISTANCE.

TABLE B-1

Participation in the Conference Assisted Our Team to
Identify Contemporary Problems Which Led to Proposals
for Career Education

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	6 24.00	10 40.00	4 16.00	4 16.00	1 4.00	25 18.94
LONG ISLAND	N %	3 10.34	12 41.38	5 17.24	6 20.69	3 10.34	29 21.97
MID-HUDSON	N %	9 34.62	12 46.15	1 3.85	4 15.38.	0 0.00	26 19.70
NEW YORK	N %	5 13.89	15 41.67	4 11.11	7 19.44	5 13.89	36 27.27
SYRACUSE	N %	2 12.50	7 43.75	4 25.00	3 18.75	0 0.00	16 12.12
TOTAL	N %	23 17.42	56 42.42	18 13.64	26 19.70	9 6.82	132 100.00

Chi-Square = 4.39 - N.S.

TABLE B-2

Participation in the Conference Assisted Our Team to
Develop a Personal Definition of Career Education

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	11 44.00	9 36.00	2 8.00	2 8.00	1 4.00	25 18.94
LONG ISLAND	N %	7 24.14	12 41.38	7 24.14	2 6.90	1 3.45	29 21.97
MID-HUDSON	N %	9 34.62	15 61.54	0 0.00	1 3.85	0 0.00	26 19.70
NEW YORK	N %	6 16.67	11 30.56	8 22.22	4 11.11	7 19.44	36 27.27
SYRACUSE	N %	6 37.50	5 31.25	3 18.75	1 6.25	1 6.25	16 12.12
TOTAL	N %	39 29.55	53 40.15	20 15.15	10 7.58	10 7.58	132 100.00

Chi-Square = 12.93 - N. S.

TABLE B-3

Participation in the Conference Assisted Our Team to
Describe the Role of a Teacher-Educator in Regard to
Career Education

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	7 28.00	14 56.00	1 4.00	1 4.00	2 8.00	25 18.94
LONG ISLAND	N %	5 17.24	10 34.48	7 24.14	6 20.69	1 3.45	29 21.97
MID-HUDSON	N %	6 23.08	16 61.54	2 7.69	1 3.85	1 3.85	26 19.70
NEW YORK	N %	2 5.56	15 41.67	10 27.78	7 19.44	2 5.56	36 27.27
SYRACUSE	N %	7 43.75	4 25.00	4 25.00	1 6.25	0 0.00	16 12.12
TOTAL	N %	27 20.45	59 44.70	24 18.18	16 12.12	6 4.55	132 100.00

Chi-Square = 9.16 - N.S.

TABLE B-4

Participation in the Conference Assisted Our Team to
Analyze Ways in Which the Developmental Needs of
Elementary/Secondary Pupils Can Be Met Through Career Education

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	10 40.00	4 16.00	7 28.00	2 8.00	2 8.00	25 18.94
LONG ISLAND	N %	5 17.24	9 31.03	7 24.14	6 20.69	2 6.90	29 21.97
MID-HUDSON	N %	9 34.62	13 50.00	1 3.85	2 7.69	1 3.85	26 19.70
NEW YORK	N %	2 5.56	10 27.78	10 27.78	8 22.22	6 16.67	36 27.27
SYRACUSE	N %	2 12.50	8 50.00	4 25.00	1 6.25	1 6.25	16 12.12
TOTAL	N %	28 21.21	44 33.33	29 21.97	19 14.40	12 9.09	132 100.00

Chi-Square = 12.83 - N.S.

TABLE B-5

Participation in the Conference Assisted Our Team to
Compare Major Theories of Career Development

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	6 24.00	11 44.00	3 12.00	3 12.00	2 8.00	25 18.94
LONG ISLAND	N %	5 17.24	15 51.72	2 6.90	7 24.14	0 0.00	29 21.97
MID-HUDSON	N %	5 19.23	13 50.00	5 19.23	3 11.54	0 0.00	26 19.70
NEW YORK	N %	7 19.44	9 25.00	13 36.11	5 13.89	2 5.56	36 27.27
SYRACUSE	N %	3 18.75	6 37.50	5 31.25	2 12.50	0 0.00	16 12.12
TOTAL	N %	26 19.70	54 40.91	28 21.21	20 15.15	4 3.03	132 100.00

Chi-Square = 1.89 - N.S.

TABLE B-6

Participation in the Conference Assisted Our Team to
Identify Major Components of the
Comprehensive Career Education Model

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	10 40.00	11 44.00	1 4.00	2 8.00	1 4.00	25 18.94
LONG ISLAND	N %	11 37.93	11 37.93	4 13.79	2 6.90	1 3.45	29 21.97
MID-HUDSON	N %	7 26.92	17 65.38	1 3.85	1 3.85	0 0.00	26 19.70
NEW YORK	N %	8 22.22	17 47.22	7 19.44	3 8.33	1 2.78	36 27.27
SYRACUSE	N %	3 18.75	5 31.25	4 25.00	4 25.00	0 0.00	16 12.12
TOTAL	N %	39 29.55	61 46.21	17 12.88	12 9.09	3 2.27	132 100.00

Chi-Square = 6.20 - N.S.

TABLE B-7

Participation in the Conference Assisted Our Team to
Identify Elements of the Decision Making Process

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	8 32.00	14 56.00	1 4.00	1 4.00	1 4.00	25 18.94
LONG ISLAND	N %	4 13.79	13 44.83	6 20.69	6 20.69	0 0.00	29 21.97
MID-HUDSON	N %	10 38.46	12 46.15	1 3.85	2 7.69	1 3.85	26 19.70
NEW YORK	N %	6 16.67	16 44.44	6 16.67	7 19.44	1 2.78	36 27.27
SYRACUSE	N %	4 25.00	6 37.50	1 6.25	4 25.00	1 6.25	16 12.12
TOTAL	N %	32 24.24	61 46.21	15 11.37	20 15.15	4 3.03	132 100.00

Chi-Square = 5.94 - N.S.

TABLE B-8

Participation in the Conference Assisted Our Team to
Describe the Relationship Between Self-Concept Theories
and Career Education

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	8 32.00	13 52.00	1 4.00	2 8.00	1 4.00	25 18.94
LONG ISLAND	N %	4 13.79	15 51.72	7 24.14	2 6.90	1 3.45	29 21.97
MID-HUDSON	N %	7 26.92	13 50.00	3 11.54	2 7.69	1 3.85	26 19.70
NEW YORK	N %	4 11.11	16 44.44	5 13.89	9 25.00	2 5.56	36 27.27
SYRACUSE	N %	2 12.50	8 50.00	3 18.75	1 6.25	2 12.50	16 12.12
TOTAL	N %	25 18.94	65 49.24	19 14.39	16 12.12	7 5.30	132 100.00

Chi-Square = 6.72 - N.S.

TABLE B-9

Participation in the Conference Assisted Our Team to
Utilize Techniques of Group Dynamics to
Achieve Career Education Goals

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	8 32.00	8 32.00	6 24.00	2 8.00	1 4.00	25 18.94
LONG ISLAND	N %	2 6.90	14 48.28	4 13.79	8 27.59	1 3.45	29 21.97
MID-HUDSON	N %	8 30.77	11 42.31	6 23.08	1 3.85	0 0.00	26 19.70
NEW YORK	N %	3 8.33	9 25.00	8 22.22	11 30.56	5 13.89	36 27.27
SYRACUSE	N %	1 6.25	3 18.75	7 43.75	2 12.50	3 18.75	16 12.12
TOTAL	N %	22 16.66	45 34.09	31 23.48	24 18.18	10 7.58	132 100.00

Chi-Square = 18.98 ** $p < .05$

TABLE B-10

Participation in the Conference Assisted Our Team to
Analyze Curricular Plans and Determine Appropriate Areas
for Infusing Career Education Objectives

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	9 36.00	5 20.00	4 16.00	5 20.00	2 8.00	25 18.94
LONG ISLAND	N %	4 13.79	13 44.83	3 10.34	6 20.69	3 10.34	29 21.97
MID-HUDSON	N %	7 26.92	15 57.70	3 11.54	1 3.85	0 0.00	26 19.70
NEW YORK	N %	4 11.11	16 44.44	8 22.22	5 13.89	3 8.33	36 27.27
SYRACUSE	N %	4 25.00	5 31.25	5 31.25	1 6.25	1 6.25	16 12.12
TOTAL	N %	28 21.21	55 41.66	23 17.42	17 12.88	9 6.82	132 100.00

Chi-Square = 10.44 - N. S.

TABLE B-11

Participation in the Conference Assisted Our Team to
 Modify Existing Courses of Study by Infusing
 Career Education Objectives

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	11 44.00	8 32.00	3 12.00	2 8.00	1 4.00	25 18.94
LONG ISLAND	N %	4 13.79	11 37.93	6 20.69	6 20.69	2 6.90	29 21.97
MID-HUDSON	N %	8 30.77	10 38.46	7 26.92	1 3.85	0 0.00	26 19.70
NEW YORK	N %	5 13.89	20 55.56	5 13.89	4 11.11	2 5.56	36 27.27
SYRACUSE	N %	4 25.00	8 50.00	2 12.50	2 12.50	0 0.00	16 12.12
TOTAL	N %	32 24.24	57 43.18	23 17.42	15 11.36	5 3.79	132 100.00

Chi-Square = 6.82 - N.S.

TABLE B-12

Participation in the Conference Assisted Our Team to
Identify Teaching Strategies That Teachers Can Utilize
to Infuse Career Education into the Curriculum

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	10 40.00	10 40.00	3 12.00	1 4.00	1 4.00	25 18.94
LONG ISLAND	N %	5 17.24	7 24.14	9 31.03	7 24.14	1 3.45	29 21.97
MID-HUDSON	N %	4 15.30	17 65.38	4 15.30	1 3.85	0 0.00	26 19.70
NEW YORK	N %	5 13.89	8 22.22	16 44.44	4 11.11	3 8.33	36 27.27
SYRACUSE	N %	2 12.50	6 37.50	3 18.75	2 12.50	3 18.75	16 12.12
TOTAL	N %	26 19.70	48 36.36	36 27.27	14 10.60	8 6.06	132 100.00

Chi-Square = 15.36 - N.S.

TABLE B-13

Participation in the Conference Assisted Our Team to
Identify Career Education Resources that Can Be Utilized
During Instruction

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	9 36.00	11 44.00	2 8.00	2 8.00	1 4.00	25 18.94
LONG ISLAND	N %	2 6.90	20 68.97	5 17.24	2 6.90	0 0.00	29 21.97
MID-HUDSON	N %	10 38.46	13 50.00	2 7.69	1 3.85	0 0.00	26 19.70
NEW YORK	N %	4 11.11	22 61.11	6 16.67	3 8.33	1 2.78	36 27.27
SYRACUSE	N %	4 25.00	8 50.00	3 18.75	1 6.25	0 0.00	16 12.12
TOTAL	N %	29 21.97	74 56.06	20 15.15	7 5.30	2 1.51	132 100.00

Chi-Square = 4.98 - N.S.

TABLE B -14

Participation in the Conference Assisted Our Team to
Agree Upon at Least One Area of the College Pre-Service
Curriculum for Infusing Career Education

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	16 64.00	5 20.00	1 4.00	2 8.00	1 4.00	25 18.94
LONG ISLAND	N %	15 51.72	11 37.93	1 3.45	1 3.45	1 3.45	29 21.97
MID-HUDSON	N %	18 69.23	5 19.23	2 7.69	1 3.85	0 0.00	26 19.70
NEW YORK	N %	15 41.67	16 44.44	3 8.33	1 2.78	1 2.78	36 27.27
SYRACUSE	N %	10 62.50	4 25.00	1 6.25	1 6.25	0 0.00	16 12.12
TOTAL	N %	74 56.06	42 31.18	9 6.81	4 3.03	3 2.27	132 100.00

Chi-Square = 4.48 - n.s.

TABLE B-15

Participation in the Conference Assisted Our Team to
Identify Areas of the Curriculum Where Career Education
Concepts Can Best Be Infused

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	9 36.00	9 36.00	4 16.00	2 8.00	1 4.00	25 18.94
LONG ISLAND	N %	8 27.59	11 37.93	6 20.69	3 10.34	1 3.45	29 21.97
MID-HUDSON	N %	10 38.46	11 42.31	3 11.54	2 7.69	0 0.00	26 19.70
NEW YORK	N %	8 22.22	11 30.56	7 19.44	8 22.22	2 5.56	36 27.27
SYRACUSE	N %	6 37.50	3 18.75	6 37.50	1 6.25	0 0.00	16 12.12
TOTAL	N %	41 31.06	45 34.09	26 19.70	16 12.12	4 3.03	132 100.00

Chi-Square = 7.01 - N.S.

TABLE B-16

Participation in the Conference Assisted Our Team to
Identify Competencies College Students Will Need to
Infuse Career Education in Elementary/ Secondary Schools

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	5 20.00	10 40.00	8 32.00	1 4.00	1 4.00	25 18.94
LONG ISLAND	N %	4 13.79	15 51.72	6 20.69	2 6.90	2 6.90	29 21.97
MID-HUDSON	N %	2 7.69	13 50.00	8 30.77	2 7.69	1 3.85	26 19.70
NEW YORK	N %	4 11.11	9 25.00	8 22.22	8 22.22	7 19.44	36 27.27
SYRACUSE	N %	5 31.25	6 37.50	2 12.50	3 18.75	0 0.00	16 12.12
TOTAL	N %	20 15.15	53 40.15	32 24.24	16 12.12	11 8.33	132 100.00

Chi-Square = 14.31 - N.S.

TABLE B-17

Participation in the Conference Assisted Our Team to
Devise Appropriate Career Education Learning Experiences
for Pre-Service Students

REGION		LIKERT RATING					
		STRONGLY AGREE	AGREE	UN- DECIDED	DIS- AGREE	STRONGLY DIS- AGREE	TOTAL
BUFFALO	N %	12 48.00	7 28.00	4 16.00	2 8.00	0 0.00	25 18.94
LONG ISLAND	N %	4 13.79	17 58.62	4 13.79	4 13.79	0 0.00	29 21.97
MID-HUDSON	N %	9 34.62	14 53.85	2 7.69	1 3.85	0 0.00	26 19.70
NEW YORK	N %	5 13.89	15 41.67	11 30.56	3 8.33	2 5.56	36 27.27
SYRACUSE	N %	5 31.25	9 56.25	1 6.25	1 6.25	0 0.00	16 12.12
TOTAL	N %	35 26.52	62 46.96	22 16.66	11 8.33	2 1.51	132 100.00

Chi-Square = 3.86 - N.S.